

ABSTRACT OF THE DISCLOSURE

IONIZATION TEST FOR ELECTRICAL VERIFICATION

[00041] A method and apparatus for the non-contact electrical test of both opens and shorts in electronic substrates. Top surface electrical test features are exposed to an ionization source under ambient conditions and the subsequent charge build up is measured as a drain current by probes contacting corresponding bottom surface features. Opens are detected by an absence of a drain current and shorts are detected by turning off the ionization source and re-measuring the bottom surface probes with a varying bias applied to each probe in the array.